

ATTENUATION OF FIBROBLAST PROLIFERATION

Abstract of the Invention

Highly purified and specific glycosaminoglycan degrading enzymes, chondroitinase B and chondroitinase AC, are used to treat fibroproliferative diseases. The enzymatic removal of chondroitin sulfate B (dermatan sulfate), and to a lesser extent, chondroitin sulfate A or C, from cell surfaces effectively decreases growth factor receptors on the cells and thereby decreases the cell proliferative response to such growth factors. In addition, removal of chondroitin sulfates reduces secretion of collagen, one of the major extracellular matrix components. Through the combined inhibition of fibroblast proliferation and collagen synthesis, treatment with chondroitinase B or chondroitinase AC decreases the size of fibrous tissue found in psoriasis, scleroderma, keloids, pulmonary fibrosis and surgical adhesions.